



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/666,100	09/18/2003	Anthony G. Liepert	03-16 US	7127
23693	7590	07/16/2004	EXAMINER	
Varian Inc. Legal Department 3120 Hansen Way D-102 Palo Alto, CA 94304			TRIEU, THERESA	
			ART UNIT	PAPER NUMBER
			3748	

DATE MAILED: 07/16/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

10/666,100

**Applicant(s)**

LIEPERT ET AL.

**Examiner**

Theresa Trieu

**Art Unit**

3748

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4, 6, 7, 11-15, 17-19 is/are rejected.
- 7) ☐ Claim(s) 5, 8-10 and 16 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date September 18, 2003.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_.

## DETAILED ACTION

### Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

*Claims 1-4, 7, 11-15 and 17-19 are rejected under 35 U.S.C. 102(b) as being anticipated by Machida et al. (Machida) (Publication Number JP 02-245488).*

Regarding claims 1 and 11, as shown in Fig. 1, Machida discloses a vacuum pumping apparatus comprising a scroll set having an inlet (1c); outlet (1d); the scroll set comprising a stationary scroll element (1a) including a stationary scroll blade (1b) and an orbiting scroll element (2a) including an orbiting scroll blade (2b); wherein the stationary and orbiting scroll blades are intermeshed together do define one or more interblade pockets (not numbered; however, clearly seen in Fig. 1); a drive mechanism (8, 10) operatively coupled to the orbiting scroll element; a bellows assembly (5) coupled between the first stationary component (13) and the orbiting scroll element (2a) so as to isolate a first volume (not numbered; however, clearly seen in Fig. 1) inside the bellows assembly and a second volume (not numbered; however, clearly seen in Fig. 1) outside the bellows assembly; and a synchronization mechanism coupled between the orbiting scroll element (2a) and a second stationary component (14a).

Regarding claims 2-4 and 7, Machida further discloses the bellows assembly comprises a bellows (5), a first flange (6) sealed to a first end of the bellows and a second flange (not numbered; however, read by the examiner as the second flange below the element having a

Art Unit: 3748

reference number (2) sealed to a second end of the bellows; a frame having a center hub (13), wherein the first flange is rotatably connected to the center hub (13); the second flange being coupled to the orbiting scroll element (2a); the drive mechanism comprising a motor (8) at least mounted at least partially inside the bellows assembly (5).

The method claims 12-15 and 17-19 are inherent in the operation of the Machida device.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Art Unit: 3748

2. *Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Machida '488 in view of Vulliez (Patent Number 3,802,809).*

Machida discloses the invention as recited above; however, Machida fails to disclose a material which makes up the bellows.

Vulliez teaches that it is conventional in the art to utilize the material being a metallic (see col. 6, line 47-48). It would have been obvious to one having ordinary skill in the art at the time the invention was made, to have utilized the metallic bellows, as taught by Vulliez in the Machida apparatus, since the use of thereof would have obtained complete fluid tightness of the system and improved the performance and the efficiency of the pump device.

***Allowable Subject Matter***

3. Claims 5, 8-10 and 16 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Prior Art***

The IDS (PTO-1449) filed on September 18, 2003 has been considered. An initialized copy is attached hereto.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure and consists of five patents.

Blain (Patent Number 4,534,718) discloses a positive displacement scroll apparatus with band linking scrolls.

Forni (Patent Number 5,328,341) discloses a synchronizer assembly for a scroll fluid device.

Art Unit: 3748

Barthod et al. (Patent Number 6,027,317) disclose a scroll type machine.

Machida et al. (Publication Number JP 59-192884) discloses a scroll fluid machine prevent the overheating of the suction gas by a bellows, a frame and a casing side plate.

Makihira (Publication Number JP 11-280675) discloses an external power driven scroll compressor.

### *Communication*

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Theresa Trieu whose telephone number is 703-308-6434. The examiner can normally be reached on Monday-Friday 8:30am- 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas E Denion can be reached on 703-308-2623. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

TT



Theresa Trieu

Patent Examiner

Art Unit: 3748